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# Perpetration of Severe Intimate Partner Violence: Premilitary and Second Year of Service Rates

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#### Abstract

A longitudinal design was used to compare rates of severe intimate partner violence (SIPV) perpetration during the year prior to enlistment and the second year of service in a sample of 542 female and 421 male Navy personnel. Overall, 11% reported perpetration of SIPV during the year prior to service. Premilitary perpetration rates of SIPV were significantly higher for women (20%) than for men (4%). Following 2 years of service, the overall percentage reporting past-year perpetration of SIPV increased slightly (14% vs. a premilitary rate of 11%). The pattern of change in rates of SIPV perpetration varied for men and women. Across time, SIPV perpetration increased among men (from 4% to 16%) and decreased among women (from 20% to 12%). Respondents who were female, younger, and minority reported higher rates of premilitary SIPV perpetration. None of the demographic factors were associated with reports of SIPV perpetration during the second year.

#### Introduction

Despite concerns that military populations may evidence high rates of intimate partner violence (IPV) perpetration, surprisingly few empirical investigations of this issue have been conducted. To further our understanding in this area, Heyman and Neidig¹ compared rates of male-to-female moderate and SIPV as reported by a representative sample of married individuals enlisted in the Army and a random sample of married employed individuals from the general population. After controlling for demographic factors associated with higher rates of male-to-female IPV (i.e., age and race), the rate of male-to-female SIPV was found to be only 2% to3% higher among Army versus civilian respondents. As these authors point out, although absolute rates of male-to-female IPV in military settings may appear to be higher than rates found in the general population, closer examination reveals that these differences reflect to some degree the overrepresentation in military settings of segments of the population most at risk for IPV (e.g., younger and minority individuals).

Although additional research is needed, results reported by Heyman and Neidig<sup>1</sup> indicate that, after controlling for age and race, rates of male-to-female SIPV are slightly higher among Army relative to civilian married couples. As these authors note, to the extent that there are higher rates of SIPV perpetration in military populations, a number of explanations are possible. One possibility is that individuals who elect to enter military services, compared with their civilian counterparts, present with higher rates of SIPV at the time of enlistment. To examine this possibility, data describing premilitary rates of perpetration of SIPV are needed. Another possibility is that elevated IPV perpetration rates in military settings may be a product of the military environment. According to this explanation, the experience of living and working in a

military setting would be expected to be associated with increased rates of IPV perpetration over and above rates of IPV perpetration that occur outside of the military setting.

The present study used a longitudinal design to assess IPV perpetration reported by a sample of Navy personnel during two time frames. Respondents were asked to report their perpetration of SIPV that occurred during the year prior to basic training (assessed at basic training) and during the second year of military service (assessed following completion of 2 years of service). The present study sought to obtain descriptive data on premilitary rates of self-reported SIPV perpetration, and examined whether rates of IPV perpetration are higher (relative to premilitary rates) during the second year of service in the Navy. Although previous investigations have tended to focus only on male-to-female violence within married couples, the present study included any perpetration of SIPV perpetrated by either male or female Navy personnel. In the present sample of young, predominantly unmarried adults, based on previous research,<sup>2-4</sup> it was expected that being female, younger, minority, lower socioeconomic status, and married would be associated with higher rates of self-reported IPV perpetration at both Time 1 (premilitary) and Time 2 (during second year of service).

#### Methods

# **Participants**

Potential participants were incoming Navy recruits at the Recruit Training Center at Great Lakes, Illinois, who voluntarily completed a set of survey instruments. Overall, 96% of men and women invited to participate did so; across groups of participants, participation rates ranged from 59% to 100%. The initial study sample in the longitudinal component of the project included 2,573 women and 2,925 men. Respondents were invited to voluntarily complete assessments again following 6 months, 1 year, and 2 years of service. The present study focuses

on 963 respondents (542 women and 421 men) with complete data from their initial assessment (i.e., collected during basic training) and the 2-year follow-up assessment.

Demographic characteristics of the sample are provided in Table I. Participants ranged in age from 17 to 35 years (M = 19.81, SD = 2.79). Most participants (87%) had earned a high school degree or the equivalent and most (89%) were single. With regard to ethnicity, 57% were Caucasian, 19% African American, 13% Hispanic, and 11% other.

To examine whether those who completed both surveys systematically differed from those who completed only the initial survey, we compared the two groups on rates of SIPV perpetration and on 5 demographic variables (age, ethnicity, education, family income, and marital status). The only significant difference between the groups was in family income,  $\chi^2$  (2, N = 5,352) = 6.11, p < .05, and this effect was small ( $\phi' = .03$ ). Those who did not participate in the follow-up were more likely than those who did to have high family incomes (27% vs. 25%) or moderate incomes (38% vs. 36%) and less likely to have low family incomes (35% vs. 39%).

## **Test Instruments**

Conflict Tactics Scale. IPV perpetration was assessed using the intimate partner version of the Conflict Tactics Scale (CTS, Form A, p. 87). The CTS is a self-report survey instrument designed to assess behaviors used to resolve conflicts in relationships (evidence supporting the reliability and validity of the CTS has been reported not be create subscales representing three different types of tactics for resolving conflict: physical aggression, verbal aggression, and reasoning. The physical aggression items can be subdivided into those reflecting minor or severe forms of physical aggression. To assess IPV perpetration, respondents were asked to indicate how frequently in the past year they had used each of 18

different conflict resolution techniques with a romantic partner (where romantic partner was defined as a person the respondent was dating, seeing, going steady with, or married to). All ratings were made on a 5-point scale (0, 1, 2-5, 6-10, more than 10).

Of the 18 CTS items, only the 5 items comprising the severe physical violence scale were used in the present study. These items asked whether the respondent had: "Hit (or tried to hit) the other person, but not with anything," "hit (or tried to hit) the other person with something hard," "kicked, bit, or hit with a fist," "beat the other person up," or "threatened the other person with a knife or gun." Respondents who reported having engaged in any behavior on the severe physical violence subscale were classified as having perpetrated SIPV.

#### Procedure

The data examined in the present study were collected as part of a more extensive survey offered to Navy recruits during their first week in basic training between June 1996 and June 1997. Nonmilitary personnel of the same sex as participants administered the survey to groups of male or female recruits. Participation was voluntary. Before agreeing to participate, recruits were provided with a description of the study, a Privacy Act Statement, and an informed consent form describing their rights as participants, including the right to "leave blank any section or questions" and to "stop at any time before completing the survey." Because they were recruited for participation in a longitudinal study, respondents in the present study were asked to provide identifying information, and they were informed that their responses would be completely confidential

but not anonymous. Two-year follow-up surveys were distributed and collected via U.S. mail.

#### Results

# Premilitary IPV Perpetration Rates

Overall, 11% of respondents reported perpetrating SIPV during the year prior to their entry into the military. Self-reported premilitary perpetration of SIPV was significantly greater among women (20%) than among men (4%),  $\chi^2$  (1, N = 963) = 43.99, p < .001,  $\phi'$  = .21.

# Second-Year IPV Perpetration Rates

Fourteen percent of respondents reported perpetrating SIPV during their second year of service in the Navy. Rates of self-reported SIPV perpetration during the second year in the military did not vary as a function of sex,  $\chi^2$  (1, N = 963) = 2.23, p > .10. Although a trend was noted, the increase in past-year SIPV perpetration rates (i.e., from 11% premilitary to 14% during the second year of service) was not significant, McNemar change test  $\chi^2$  (1, N = 963) = 3.43, p < .07. Patterns of change in SIPV over time differed for men and women (see Figure 1). Among men, rates of SIPV perpetration significantly increased over time, from 4% to 16%, McNemar change test  $\chi^2$  (1, N = 421) = 32.51, p < .001. In contrast, among women, rates of SIPV perpetration significantly decreased over time, from 20% to 12%, McNemar change test  $\chi^2$  (1, N = 542) = 4.92, p < .05.

# Age and IPV Perpetration

We next examined whether age was systematically associated with rates of SIPV perpetration. Because our previous analyses indicated different patterns of IPV perpetration for men and women, these analyses were computed separately for each group. Correlational analysis indicated that age was significantly associated with premilitary SIPV for men ( $r_{pb}$  [421] = .12, p

< .05), but not for women (r [542] = .03, n.s.). To explore the possibility of a nonlinear relationship between age and SIPV, chi-square tests of association were conducted. Past-year prevalence of perpetration of SIPV for women and men are presented in Figure 2. As can be seen in Figure 2, for men reported rates of SIPV perpetration increased with age among cohorts between 17 and 29 years old and declined among men 30 years of age or older. As in the correlational analysis, this analysis revealed a significant association for men,  $\chi^2$  (5, N = 421) = 15.63, p < .01. Although women also showed a decline in reported SIPV perpetration beginning at age 30, they manifested a less pronounced increase in rates of SIPV from ages 17 to 29, and the association between age and IPV was not significant,  $\chi^2$  (5, N = 542) = 4.29, n.s. However, a loglinear analysis revealed that the association between age and IPV did not significantly differ for men and women, L.R.  $\chi^2$  (5, N = 963) = 9.11, p > .10.

At Time 2, age was not related to SIPV perpetration for either men,  $\chi^2$  (5, N = 421) = 6.47, p > .25, or women,  $\chi^2$  (5, N = 543) = 7.47, p > .18. Loglinear analysis confirmed that age was unrelated to SIPV perpetration at Time 2, L.R.  $\chi^2$  (5, N = 963) = 8.30, p > .14. Moreover, this analysis revealed that there was no difference in the association between SIPV perpetration and age group as a function of sex, L.R.  $\chi^2$  (5, N = 963) = 8.72, p > .12.

## Ethnicity and IPV Perpetration

Ethnicity was significantly associated with self-reported rates of SIPV perpetration at Time 1 for both men and women,  $\chi^2$  (2, N = 359) = 9.51, p < .01 and  $\chi^2$  (2, N = 476) = 20.01, p < .001. However, the pattern was somewhat different for men and women. Pairwise comparisons between ethnic groups were conducted using additional chi-square tests of association. Among men, Hispanics (10%) were significantly more likely to report SIPV than were Whites (2%),  $\chi^2$ 

(1, N=353) = 9.82, p < .01. African Americans reported an intermediate level of SIPV (5%) that did not significantly differ from either of the other two ethnic groups,  $\chi^2 s \le 2.48, p's > .11$ . Among women, African Americans (29%) reported significantly higher rates of SIPV than either Whites (13%) or Hispanics (8%),  $\chi^2 s \ge 10.17, p's < .01$ . The rates of IPV reported by Whites and Hispanics did not differ,  $\chi^2$  (1, N=353) = 1.00, n.s. At Time 2, SIPV perpetration was unrelated to ethnicity for both men,  $\chi^2$  (2, N=359) = 0.83, p > .65, and women,  $\chi^2$  (2, N=476) = 4.03, p > .13.

# Other Demographic Factors and IPV Perpetration

We also examined the associations of family income, education level, and marital status with past-year perpetration of SIPV. None of these associations were statistically significant (p's > .05) at either Time 1 or Time 2.

## Discussion

Overall, 11% of respondents reported perpetrating SIPV during the year prior to their entry into the military. Consistent with previous research,<sup>2</sup> premilitary rates of self-reported IPV were higher among women (20%) compared with men (4%). Although the present study lacked a general population comparison group, studies examining perpetration of SIPV among young adults in the general population are available. For example, data from the National Youth Survey (NYS), a longitudinal study of a national probability sample of men and women in the United States, found that self-reported past-year rates of SIPV (based on CTS responses) among married or cohabitating individuals (18-24 years of age) were 22.7% for women and 7.4% for men.<sup>8</sup> Comparison of the present findings and the NYS rates should be made with caution given that the NYS rates are based on only those respondents who were married or cohabitating. It may be

noted, however, that in the present study marital status was unrelated to SIPV rates, indicating that rates of SIPV did not vary by marital status in the present sample. To the extent that these rates can be compared, the rates of premilitary perpetration of SIPV reported by our Navy sample appear comparable for women and slightly lower for men in comparison with same-age cohorts in the NYS general population sample. Thus, the present data do not support the notion that individuals entering the military, compared with their civilian counterparts, present with high rates of SIPV at the time of enlistment.

The present study revealed that rates of self-reported SIPV perpetration were slightly higher during the second year of enlistment compared with the premilitary rates. Importantly, the pattern of change in rates of self-reported SIPV perpetration varied significantly for men and women in this sample. More specifically, rates of self-reported SIPV increased significantly among men (from 4% to 16%) but decreased significantly among women (20% to 12%).

One possible explanation for these changes across time is that differences in IPV rates from Time 1 to Time 2 may be a function of naturally occurring changes associated with the maturation of participants. Age-related changes in IPV rates have been demonstrated consistently in previous research.<sup>3</sup> Age-related changes in IPV rates also are suggested by our findings indicating that premilitary rates of self-reported SIPV among men (and to some extent among women) increased considerably across age cohorts from late teens through the late-20s, and then decreased dramatically among men and women 30 years of age or older. It is noteworthy that in the present sample, over 90% of respondents were less than 24 years of age at Time 1, which would suggest that the rates of SIPV perpetration would be higher at Time 2 as a function of age-related changes. Consistent with the expectation of a maturational effect, rates of self-reported premilitary IPV perpetration increased across time among men. However, rates of

IPV perpetration during the second year of service were not significantly associated with age. The fact that age was unrelated to SIPV perpetration at Time 2 undermines the possibility that maturational factors explained the changes in IPV perpetration rates noted across time among men in this sample. Further, age does not appear to be a plausible explanation for the decrease in rates of SIPV perpetration from Time 1 to Time 2 observed for women. Based on the available data, the role of maturational factors in explaining the changes in IPV perpetration noted among men and women in our sample remains unclear.

Consistent with previous research, <sup>2,3,6</sup> gender, age, and ethnicity were each associated with premilitary rates of self-reported SIPV perpetration. It is noteworthy, however, that none of the demographic factors examined were associated with self reported SIPV perpetration during the second year of military service. Thus, the associations between demographic factors and IPV perpetration appear to be diminished in Navy relative to nonmilitary environments.

Conceptually, demographic factors associated with IPV perpetration are considered marker variables for the presence/absence of causal risk factors associated with IPV. One possible interpretation of this pattern of findings is that there is a homogenization of experience across individuals during the first 2 years of service, such that individual characteristics such as demographic factors are less predictive of variations in experience or environment.

Relatedly, to the extent that the cultural context in military settings differs from civilian settings, these differences may serve to moderate the associations between demographic factors and IPV perpetration. Although cross-cultural data on IPV perpetration are limited, numerous characteristics of a culture (e.g., levels of equity across genders, prohibitions against violence) have been implicated in influencing patterns and rates of IPV perpetration (see Archer 2000 for additional discussion). For example, it has been suggested that high rates of male-to-female

violence, but low rates of female-to-male violence, are likely in cultures in which there are strong patriarchal systems and values.<sup>2</sup>. In contrast, high rates of female-to-male violence, but low rates of male-to-female violence, are expected in cultures characterized by prohibitions against male-to-female violence and gender equity in interpersonal and economic domains. Additional research is needed to explore the factors associated with the first 2 years of experience in the Navy that may be relevant in understanding the pattern of changes in IPV perpetration noted among men and women in this sample.

An unanswered question in the present study is how the increases in male-to-female IPV across time noted among this sample of Navy personnel compare with the age-related increases that would be expected in a matched civilian population sample. For example, it remains possible that IPV perpetration increases more/less dramatically among men serving in the Navy compared with the age-related changes among civilian populations. Findings from the present study would be strengthened by data on age-related changes in IPV across the same 2-year time period for a matched Navy and civilian samples. Unfortunately, no such comparison data were available in the present study.

Other limitations of this study should be noted. Loss of participants across time (an unavoidable issue in longitudinal research) limits the generalizability of the present findings. Although an important concern, it is noteworthy that our attrition analyses revealed that those who completed both the initial and 2-year follow-up survey and those who completed only the initial survey were similar in terms of premilitary self-reported IPV perpetration and all but one (i.e., family income) of the demographic variables. Also, reliance on self-reported IVP perpetration is another obvious study limitation, although alternative methods of discerning IPV perpetration (e.g., police records) are not free of limitations (e.g., under detection).

Despite these limitations, the present study, using a longitudinal design and standardized assessment procedures, found that rates of IPV perpetration increased significantly among men and decreased among women across their first 2 years of service in the Navy. The importance of preventative interventions targeting IPV has been argued by others9 and the present findings (i.e., significant increases in SIPV perpetration rates across time among enlisted men) underscore the opportunity for prevention of IPV that occurs during the transition into the Navy. As previously noted, additional research comparing Navy and civilian populations with regard to changes in patterns and rates of IPV across time is needed. Further, additional research designed to provide a more refined description of subgroups of individuals (e.g., those who first initiate IPV while in service, those who continue premilitary patterns of IPV, and those who cease to perpetrate IPV during service) may provide insights into the factors that influence changes in patterns of IPV perpetration. Also, research exploring the proximal and causal factors associated with starting, continuing, and stopping IPV perpetration during service in the Navy may help inform prevention and intervention efforts designed to reduce risk of IPV perpetration among personnel in the Navy.

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Table I

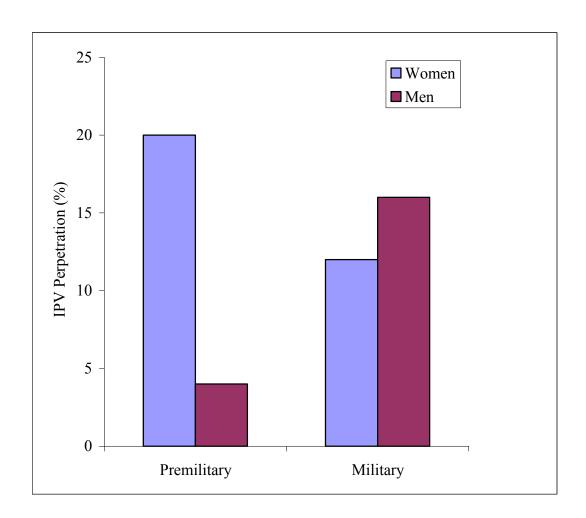
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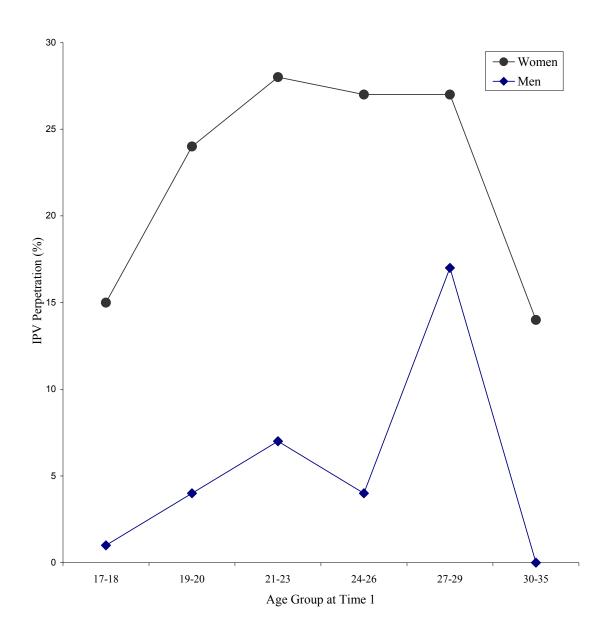
Characteristic	Men	Women	Overall
Age at Time 1 (years)			
17 – 18	41	44	43
19 – 20	34	32	33
21 – 23	14	15	15
24 – 26	5	6	5
27 – 29	4	2	3
30 – 35	2	1	1
Ethnicity			
White	57	56	57
African American	14	24	19
Hispanic	15	11	13
Other	14	9	11
Marital status			
Single	91	87	89
Married or cohabiting	8	11	10
Other	1	2	1

Table continued

Characteristic	Men	Women	Overall
Family income			
Less than \$25,000	37	41	38
\$25,000 - \$50,000	34	38	36
More than \$50,000	29	21	25
Education			
Less than high school	4	4	4
High school or GED	87	86	87
Some college	9	10	9

- Fig. 1. Premilitary and second year IPV perpetration rates (in percentages) as reported by women and men.
- Fig. 2. Premilitary IPV perpetration rates (in percentages) as reported by women and men across age categories.





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15. SUBJECT TERMS

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